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Client Ref.: P2003,0640USN

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A surface acoustic wave (SAW) filter comprising:

a transducer for a filter operating with surface waves with one comprising an acoustic track to pass a SAW (AT) in which in the mid-frequency of the filter an acoustic surface wave, a center frequency of the filter exciting the SAW; is excitable,

whereby wherein the acoustic track (AT) is apportioned comprises cells along in a longitudinal direction of the acoustic track, each cell comprising electrode fingers, the cells comprising in cells of different cell types, whereby where a cell type is defined by the a connection sequence of the electrode fingers of in a cell[[,]];

whereby wherein at least some of the cells are constructed as function functional cells, each functional cell for exciting and/or reflecting the SAW; that fulfill at least one function selected from the exciting and reflection of the acoustic wave,

whereby the wherein a length of the function cells essentially a functional cell corresponds to a phase shift of $2\pi n$ of the acoustic wave SAW excited in the mid-frequency by $2\pi n$, whereby where n is a whole number an integer[[,]];

whereby wherein the functional cells comprise at least two function functional cells (Z1, Z1') of the a same cell type; and are anticipated,

whereby wherein the functional cells are configured so that, when the SAW

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passes through at least two functional cells that have different cell types, the SAW experiences ~~the acoustic wave that is excited in the middle frequency in the transducer, in passing through at least two different circuits, which in each case are measured from the beginning of the function cell of the same cell type to the beginning of the subsequent cell (Z2, Z3), finds~~ different phase shifts of φ and φ' ~~which are different from each other~~.

2. (Currently Amended) A surface acoustic wave (SAW) filter comprising:

a transducer ~~for a filter operating with surface waves with one~~ comprising an acoustic track to pass a SAW ~~(AT) in which in the mid-frequency of the filter an acoustic surface wave,~~ a center frequency of the filter exciting the SAW; ~~is excitable,~~

~~whereby~~ wherein the acoustic track ~~(AT) is apportioned~~ comprises cells along ~~in~~ a longitudinal direction of the acoustic track, each cell comprising electrode fingers, the cells comprising ~~in cells of~~ different cell types, ~~whereby~~ where a cell type is defined by ~~the~~ a connection sequence of ~~the~~ electrode fingers of a cell[[,]];

~~whereby~~ wherein at least some of the cells are ~~constructed as function~~ functional cells, each functional cell for exciting and/or reflecting the SAW; ~~that fulfill at least one function selected from the exciting and reflection of the acoustic wave,~~

~~whereby~~ wherein the functional cells comprise at least two ~~function~~ functional cells ~~(Z1, Z1') are anticipated, which in each case display~~ each of the at least two functional cells comprising at least one wide electrode finger ~~(WF)~~ and at least one narrow ~~(NF)~~ electrode finger, where a wide electrode finger is an electrode finger having

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a width that is greater than a width of a narrow electrode finger; and

wherein a reflective strength of a target functional cell is configurable by changing a width of an electrode finger in the target functional cell but by maintaining an overall width of the target functional cell substantially constant

~~whereby individual distinct reflective strengths in the various function cells of the same cell type are attuned by the following measures: in different function cells of the same cell type, the sums of the relative widths of all narrow electrode fingers with respect to cell length are distinguished by the difference +α,~~

~~whereby at the same time the sums of the relative widths of all wide electrode fingers with respect to cell length are distinguished by a difference of -α, so that in the different function cells of the same cell type the sum of the relative change of width of all fingers is zero.~~

3. (Currently Amended) The filter ~~transducer according to~~ of claim 2, ~~in which the~~ wherein a length of ~~the function~~ a functional cell ~~cells essentially~~ corresponds substantially to a phase shift of $2\pi n$ in the SAW ~~a phase shift of the acoustic wave~~ excited ~~in~~ at the center ~~mid-~~frequency ~~by 2πn, whereby~~ where n is an integer ~~a whole number~~[[,]]; and

~~whereby~~ wherein the functional cells are configured so that, when the SAW passes through at least two functional cells that have different cell types, the SAW experiences ~~the acoustic wave that is excited in the middle frequency in the transducer, in passing through at least two different circuits, which in each case are measured from~~

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the beginning of the function cell of the same cell type to the beginning of the subsequent cell (Z2, Z3), finds different phase shifts of φ and φ' which are different from each other.

4. (Currently Amended) Transducer according to one The filter of claim 1 the claims 1 to 3, in which wherein the functional cells comprise at least two function functional cells having a (Z1, Z1) of the same cell type show the and having a same construction, configuration but is that are scaled differently in the longitudinal direction.

5. (Currently Amended) Transducer according to The filter of claim 1 [[4]], wherein the functional cells comprise functional cells having more than one cell type and that are scaled differently in which more than only one cell type with differently scaled function cells is anticipated.

6. (Currently Amended) Transducer according to one The filter of claim 1 [[4 or 5]], in which wherein the functional cells comprise at least two function functional cells of the having a same cell type that are scaled differently, whereby the a difference in scaling of the at least two functional cells being amounts to between 0.1% and 20%.

7. (Currently Amended) Transducer according to one The filter of claim 1 [[or 2]], in which wherein all electrode fingers of a function functional cell (Z1, Z1') together form comprise an electrode finger group (FG1, FG1'), and whereby wherein the

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functional cells comprise at least two ~~function~~ functional cells ~~of the~~ having a same cell type ~~display identically constructed~~ and having electrode finger groups with configurations that are substantially identical; and ~~(FG1, FG1'),~~

~~whereby the respective displacement between the~~ wherein the functional cells comprise first, second, third and fourth functional cells, and wherein a final ~~position~~ electrode finger ~~(10)~~ of ~~a~~ the first functional ~~function~~ cell and ~~the~~ an initial electrode finger ~~(11) assigned to this electrode finger of the subsequent~~ of the second functional cell define a distance that is different from a corresponding distance in the third and fourth functional cells, the first and third functional cells having substantially same configurations and the second and fourth functional cells having substantially same configurations ~~in another function cell with an identically built electrode finger group is differently selected~~.

8. (Currently Amended) ~~Transducer according to one of the claims 1 to 7~~ The filter of claim 1, ~~in which cells are anticipated with the~~ wherein at least some of the cells have a length $\lambda/2$[[, that neither contributes]] and do not contribute to ~~the~~ reflection ~~no to the~~ or excitation ~~exciting~~ of the SAW, where λ is a wavelength ~~acoustic wave~~.

9. (Currently Amended) ~~Transducer according to one of the claims 1 to 7~~ The filter of claim 1, ~~with which~~ wherein the ~~function~~ functional cells ~~of the~~ comprise functional cells having a same cell type ~~show~~ and four electrode fingers per functional cell ~~each~~.

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10. (Currently Amended) ~~Transducer according to one of the claims 1 to 8~~ The filter of claim 1, ~~in which all function cells of a cell type are comprised of~~ wherein the functional cells comprise functional cells having three electrode fingers, at least one of the three electrode fingers being a wider electrode finger, the wider electrode finger being wider than another of the three electrode fingers, and

~~whereby the~~ wherein a width of the wider ~~of the~~ electrode finger is about ~~fingers essentially amounts to~~ $3\lambda/8$, or ~~whereby~~ wherein the width of the wider ~~of the~~ electrode ~~fingers~~ finger deviates from ~~the value~~ $3\lambda/8$ by at most 20%, where λ is a wavelength.

11. (Currently Amended) ~~Transducer according to one of the claims 1 to 10~~ The filter of claim 1, ~~with the~~ wherein at least one cell comprises an electrode finger[[, whose]] having a width ~~essentially amounts to~~ of about $m\lambda/16$ or having a width that, at most, deviates from ~~this value~~ $m\lambda/16$ by ± 20%, ~~whereby~~ where m is ~~a whole number~~ an integer, and where λ is a wavelength.

12. (Currently Amended) ~~Transducer according to one of the claims 1 to 11~~ The filter of claim 1, wherein the acoustic track comprises a first acoustic track, and wherein the transducer further comprises a second acoustic track, the second acoustic track being substantially identical to the first acoustic track; and

~~which is equipped with at least one additional acoustic track (AT), that shows essentially same characteristics as the first named acoustic track, whereby the~~ wherein

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the first and second acoustic tracks are ~~arranged~~ parallel ~~to each~~ and electrically

interconnected ~~with each other~~.

13. (New) The filter of claim 2, wherein the functional cells comprise at least

two functional cells having a same cell type and having a same configuration but that are

scaled differently in the longitudinal direction.

14. (New) The filter of claim 2, wherein the functional cells comprise functional

cells having more than one cell type and that are scaled differently.

15. (New) The filter of claim 2, wherein the functional cells comprise at least

two functional cells having a same cell type that are scaled differently, a difference in

scaling of the at least two functional cells being between 0.1% and 20%.

16. (New) The filter of claim 2, wherein electrode fingers of a functional cell

comprise an electrode finger group, and wherein the functional cells comprise at least

two functional cells having a same cell type and having electrode finger groups with

configurations that are substantially identical; and

wherein the functional cells comprise first, second, third and fourth functional

cells, and wherein a final electrode finger of the first functional cell and an initial

electrode finger of the second functional cell define a distance that is different from a

corresponding distance in the third and fourth functional cells, the first and third

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functional cells having substantially same configurations and the second and fourth

functional cells having substantially same configurations.

17. (New) The filter of claim 2, wherein at least some of the cells have a length

$\lambda/2$ and do not contribute to reflection or excitation of the SAW, where λ is a

wavelength.

18. (New) The filter of claim 2, wherein the functional cells comprise functional

cells having a same cell type and four electrode fingers per functional cell.

19. (New) The filter of claim 2, wherein the functional cells comprise functional

cells having three electrode fingers, at least one of the three electrode fingers being a

wider electrode finger, the wider electrode finger being wider than another of the three

electrode fingers, and

 wherein a width of the wider electrode finger is about to $3\lambda/8$, or wherein the

width of the wider electrode finger deviates from $3\lambda/8$ by at most 20%, where λ is a

wavelength.

20. (New) The filter of claim 2, wherein at least one cell comprises an electrode

finger having a width of about $m\lambda/16$ or having a width that, at most, deviates from

$m\lambda/16$ by ± 20%, where m is an integer, and where λ is a wavelength.

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21. (New) The filter of claim 2, wherein the acoustic track comprises a first acoustic track, and wherein the transducer further comprises a second acoustic track, the second acoustic track being substantially identical to the first acoustic track; and

wherein the first and second acoustic tracks are parallel and electrically interconnected.